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10/614,456

07/07/2003

Herbert Cermak

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12/28/2006

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EXAMINER

HEITBRINK, JILL LYNNE

ART UNIT

PAPER NUMBER

1732

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
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3 MONTHS

12/28/2006

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/614,456

Applicant(s)

CERMAK, HERBERT

Examiner

Jill L. Heitbrink

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1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 5-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 5-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

1. In view of the appeal brief filed on October 6, 2006, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent

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granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 19 and 20 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Burckhardt et al. Pat. No. 3,707,852.

5. Burckhardt discloses a protective boot (sealing sleeve) for a constant velocity universal joint (between a joint part and a shaft of a homo-kinetic joint). Burckhardt discloses the each and every structural element of the roll boot and constant velocity joint set forth in claim 1 including the widened portion (conical portion 4) and the cylindrical portion (ring 2). Burckhardt teaches the boot being made of elastic material, but is silent as to the method of molding. The claimed phrases "injection-molding", "turning...inside out" and "folding" are being treated as product by process limitations. As set forth in MPEP 2113, product by process claims are not limited to the manipulations of the recited steps, only to the structure implied by the steps. Once a product appearing to be substantially the same or similar is found a 35 U.S.C. 102/103

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rejection may be made and the burden is shifted to applicant to show an unobvious difference. See MPEP 2113. Thus, even though Burckhardt is silent as to the process used to mold the elastic boot, it appears that the product in Burckhardt would be the same or similar as that claimed, especially since both have similar shapes and material.

6. Claims 19 and 20 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Wette et al. Pat. No. 6,426,033.

7. Wette discloses a rolling boot for a universal joint with a cylindrical section 9 and a conical section 12. The rolling boot is produced by injection molding. Wette does not teach the boot turned completely inside out, but does disclose the folding outwardly for forming the roll wall of the finished roll boot, see Fig. 1. These claims are product by process. As set forth in MPEP 2113, product by process claims are not limited to the manipulation of the recited steps, only to the structure implied by the steps. Once a product appearing to be substantially the same or similar is found, a 35 U.S.C. 102/103 rejection may be made and the burden is shifted to applicant to show an unobvious difference.

8. Claims 1, 2, 10-16 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris et al. Pat. No. 3,013,920 taken together with Douglass Pat. No. 6,205,907.

9. Harris discloses a process of molding a flexible diaphragm. A flexible diaphragm of Harris being a roll boot would have been obvious to a person of ordinary skill in the

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art since the diaphragm of Harris has a similar shape to a roll boot and is used between movable parts. The basic member 30 is a corded fabric with rubber (col. 2, lines 55-65). After shaping on the form in Fig. 4, the member 30 is turned inside out and then replaced on the form Fig. 5, see col. 3, lines 63-65. Douglass discloses a process of injection molding a roll diaphragm which is an improvement from the use of a fabric. It would have been obvious to a person of ordinary skill in the art to injection mold the diaphragm on to the form (Fig. 4 of Harris) and then turn the diaphragm inside out (Fig. 5 of Harris) since the injection molding can be performed to produce a more symmetrical diaphragm. The injection molding of two widened portions would have been obvious multiplicity when forming a roll diaphragm which is used in an apparatus with two rolling portions. Douglass (see col. 1, line 65-col. 2, line 34) is combined to teach the use of injection molding rather than the use of corded fabric.

10. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris et al. Pat. No. 3,013,920 taken together with Douglass Pat. No. 6,205,907 as applied to claims 1, 2, 10-16 and 18-20 above, and further in view of Chilton Pat. No. 2,178,953.

11. Chilton teaches the wall thickness which decreases from the cylindrical portion to its free end (page 1, right column, lines 13-16). It would have been obvious to provide the diaphragm of Harris with a wall thickness which decreases from the cylindrical portion to its free end since this will ease the change in circumference during rolling.

12. Claims 5-9 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris et al. Pat. No. 3,013,920 taken together with Douglass Pat. No. 6,205,907

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as applied to claims 1, 2, 10-16 and 18-20 above, and further in view of Voss Pat. No. 3,797,816.

13. Chilton teaches the wall thickness which decreases from the cylindrical portion to its free end (col. 2, lines 67-68) and the use of a clamp band (13, col. 3, lines 3-8). It would have been obvious to provide the diaphragm of Harris with a wall thickness which decreases from the cylindrical portion to its free end and with a clamp band since these would provide ease in change in circumference during rolling and maintain the diaphragm attached to the moving members.

### ***Response to Arguments***

14. In response to applicant's argument that the references are not directed toward relieving stresses in the roll wall, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

15. Applicant argues that Harris vulcanizes the rubber product in Fig. 6 which would be completely free of any internal tensions or stress. However, applicant does not define any amount of tensions, stress or condition of the elastic material in the claims.


16. Applicant argues that the inversion in Harris is at an intermediate state during the process. However, applicant's claim uses "comprising" which can include other steps. Applicant has other steps after turning inside out which includes folding.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill L. Heitbrink whose telephone number is (571) 272-1199. The examiner can normally be reached on Monday-Friday 9 am -2 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jill L. Heitbrink  
Primary Examiner  
Art Unit 1732

jlh

  
CHRISTINA JOHNSON  
SUPERVISORY PATENT EXAMINER